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Attorney Docket No.: 23239-540

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS : Epstein, et al.

SERIAL NUMBER : 10/677,807

EXAMINER : Cheyne D. Ly

FILING DATE : October 1, 2003

ART UNIT : 1631

FOR : THERAPEUTIC APTAMERS HAVING BINDING SPECIFICITY TO  
GP41 OF HIV

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action based on the merits in the above-identified case. Accordingly, no fee or certification is believed required.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and sign the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANTS: Epstein, et al.  
U.S.S.N.: 10/677,807

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 23239-540.

Respectfully submitted,



Ivor R. Elrifi, Reg. No. 39,529  
Jennifer A. Karnakis, Reg. No. 53,097  
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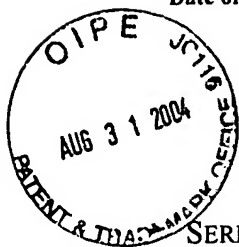
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**TRANSMITTAL LETTER**


Transmitted herewith for filing in the present application are the following documents:

1. Information Disclosure Statement (2 pages), in duplicate;
2. Modified Form 1449/PTO (3 pages), in duplicate;
3. Copies of Cited References: A1-2; B1-7; C1-68; and
4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

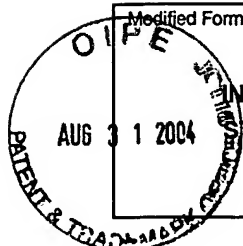
The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 23239-540. A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

  
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Date: August 31, 2004

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Modified Form 1449/PTO		<b>Application Number</b>	10/677,807
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Filing Date</b>	October 1, 2003
		<b>First Named Inventor</b>	Epstein
		<b>Group Art Unit</b>	1631
		<b>Examiner Name</b>	Cheyne D. Ly
		<b>Attorney Docket Number</b>	23239-540

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A1	5,589,332	12/31/96	Shih, et al.	435	6	
	A2	5,834,186	11/10/98	George, et al.	435	6	

FOREIGN PATENT DOCUMENTS							
Exa m Initi als	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No		
	B1	WO 98/08974	Intelligene Ltd.	03/05/98			
	B2	WO 98/27104	Yale University	06/25/98			
	B3	WO 01/66721 A2	Ribozyme Pharmaceuticals, Inc.	09/13/01			
	B4	WO 00/70329	Brandeis University	11/23/00			
	B5	WO 99/31276	Nexstar Pharmaceuticals, Inc.	06/24/99			
	B6	WO 03/014375 A2	Archemix Corporation	02/20/03			
	B7	WO 02/22882 A2	Archemix Corporation	03/21/02			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C1	Breaker, R.R., <i>Curr. Opin. Biotech.</i> , 7:442-448 (1996).
	C2	Breaker, R.R., <i>Chem. Rev.</i> , 97:371-390 (1997).
	C3	Breaker, R.R., <i>Curr. Opin. Chem. Biol.</i> , 1:26-31 (1997).
	C4	Breaker, R.R., <i>Nat. Biotech.</i> , 15:427-431 (1997).
	C5	Breaker, R.R., Intracellular Ribozyme Applications in Principles and Protocols, pgs. 1-19; Horizon Scientific Press, Wymondham UK, Rossi and Couture, eds., (1999).
	C6	Breaker, R.R., <i>Curr. Opin. Biotech.</i> , 13:31-39 (2002).
	C7	Broder, et al., <i>Pathobiol.</i> , 64:171-179 (1996).
	C8	Burton, D.R., <i>Proc. Natl. Acad. Sci. USA</i> , 94:10018-10023 (1997).
	C9	Carmi, et al. <i>Chem. &amp; Biol.</i> , 3:1039-1046 (1996).
	C10	Chan, et al., <i>Cell</i> , 89(2):263-273 (1997).
	C11	Chan, et al., <i>Cell</i> , 93(5):681-684 (1998).
	C12	Clerici, et al., <i>AIDS</i> , 16(13):1731-1741 (2002).
	C13	Cole, et al., <i>Biochem.</i> , 40(19):5633-5641 (2001).
	C14	Conley, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 91:3348-3352 (1994).
	C15	Dorn, et al., <i>J. Clin. Microbiol.</i> , 38(2):773-780 (2000).
	C16	D'Souza, et al., <i>Nat. Med.</i> , 2(12):1293-1300 (1996).

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C17	Eckert, et al., <i>Cell</i> , 99(1):103-115 (1999).
	C18	Eckert, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 98(20):11187-11192 (2001).
	C19	Gold, L., <i>Nat. Biotech.</i> , 20: 671-672 (2002).
	C20	Hamaguchi, et al., <i>Anal. Biochem.</i> , 294:126-131 (2001).
	C21	Hartig, et al., <i>Nat. Biotech.</i> , 20:717-722 (2002).
	C22	Jenne, et al., <i>Nat. Biotech.</i> , 19:56-61 (2001).
	C23	Jiang, et al., <i>Nature</i> , 365:113 (1993).
	C24	Judice, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 94:13426-13430 (1997).
	C25	Kilby, et al., <i>Nat. Med.</i> , 4(11):1302-1307 (1998).
	C26	Koizumi, et al., <i>Nucl. Acids Symp. Ser.</i> , 42:275-276 (1999).
	C27	Koizumi, et al., <i>Nat. Struct. Biol.</i> , 6(11):1062-1071 (1999).
	C28	Kowalski, et al., <i>Science</i> , 237:1351-1355 (1987).
	C29	Lawless, et al., <i>Biochem.</i> , 35(42):13697-13708 (1996).
	C30	Li, et al., <i>Curr. Opin. Struct. Biol.</i> , 9:315-323 (1999).
	C31	Li, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 96:2746-2751 (1999).
	C32	Lu, et al., <i>Nat. Struct. Biol.</i> , 2(12):1075-1082 (1995).
	C33	Marshall, et al., <i>Nat. Struct. Biol.</i> , 6(11):992-994 (1999).
	C34	McGaughey, et al., <i>Biochem.</i> , 42(11):3214-3223 (2003).
	C35	Muster, et al., <i>J. Virol.</i> , 67(11):6642-6647 (1993).
	C36	Poignard, et al., <i>Ann. Rev. Immunol.</i> , 19:253-274 (2001).
	C37	Potyrailo, et al., <i>Anal. Chem.</i> , 70:3419-3425 (1998).
	C38	Profy, et al., <i>J. Immunol.</i> , 144(12):4641-4647 (1990).
	C39	Report on the Global HIV/AIDS Epidemic, XIV International Conference on AIDS, Barcelona, 7-12 July, 2002.
	C40	Robertson, et al., <i>Nucl. Acids Res.</i> , 28(8):1751-1759 (2000).
	C41	Robertson, et al., <i>Nat. Biotech.</i> , 17:62-66 (1999).
	C42	Robertson, et al., <i>Nat. Biotech.</i> , 19:650-655 (2001).
	C43	Root, et al., <i>Science</i> , 291:884-888 (2001).
	C44	Sackett, et al., <i>Biochem.</i> , 41(14):4678-4685 (2002).
	C45	Salzwedel, et al., <i>J. Virol.</i> , 73(3):2469-2480 (1999).
	C46	Sassanfar, et al., <i>Nature</i> , 364:550-553 (1993).
	C47	Schilbli, et al., <i>Biochem.</i> , 40(32):9570-9578 (2001).
	C48	Seetharaman, et al., <i>Nat. Biotech.</i> , 19:336-341 (2001).
	C49	Seiwert, et al., <i>Chem. &amp; Biol.</i> , 7:833-843 (2000).
	C50	Sia, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 99(23):14664-14669 (2002).
	C51	Siebert, et al., <i>Biochem.</i> , 41(9):2956-2961 (2002).
	C52	Singh, et al., <i>J. Mol. Biol.</i> , 290(5):1031-1041 (1999).
	C53	Soukup, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 96:3584-3589 (1999).
	C54	Soukup, et al., <i>RNA</i> , 5:1308-1325 (1999).

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Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C55	Soukup, et al., <i>Structure</i> , 7(7):783-791 (1999).
	C56	Soukup, et al., <i>Tren. Biotech.</i> , 17:469-476 (1999).
	C57	Soukup, et al., in <i>Ribozyme Biochem. Biotech.</i> , Eaton Publishing, Chapter 8, pgs. 149-170, Krupp & Gaur, eds. (2000).
	C58	Soukup, et al., <i>RNA</i> , 7:524-536 (2001).
	C59	Soukup, et al., <i>J. Mol. Biol.</i> , 298:623-632 (2000).
	C60	Starcich, et al., <i>Cell</i> , 45:637-648 (1986).
	C61	Jones, et al., <i>J. Biol. Chem</i> , 273(1):404-409 (1998).
	C62	Suárez, et al., <i>J. Virol.</i> , 74(17):8038-8047 (2000).
	C63	Tang, et al., <i>Chem. &amp; Biol.</i> , 4:453-459 (1997).
	C64	Tang, et al., <i>Nucl. Acids Res.</i> , 26(18):4214-4221 (1998).
	C65	Tang, et al., <i>RNA</i> , 3:914-925 (1997).
	C66	Tucker, et al., <i>J. Chromatography B.</i> , 732(1):203-212 (1999).
	C67	Wild, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 91:9770-9774 (1994).
	C68	Wilkinson, D., <i>Curr. Biol.</i> , 6(9):1051-1053 (1996).

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

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